



TYPE-R SUBWOOFER

HAUT-PARLEUR D'EXTRÊMES GRAVES TYPE-R

APPLICATION GUIDE

GUIDE D' APPLICATION

SWR-1542D

15 Inch Dual Voice Coil Subwoofer (4Ω)+(4 Ω)
Haut-parleur d'extrêmes graves à double bobine 15 po (4Ω)+(4 Ω)

SWR-1522D

15 Inch Dual Voice Coil Subwoofer (2Ω)+(2 Ω)
Haut-parleur d'extrêmes graves à double bobine 15 po (2Ω)+(2 Ω)

SWR-1242D

12 Inch Dual Voice Coil Subwoofer (4Ω)+(4 Ω)
Haut-parleur d'extrêmes graves à double bobine 12 po (4Ω)+(4 Ω)

SWR-1222D

12 Inch Dual Voice Coil Subwoofer (2Ω)+(2 Ω)
Haut-parleur d'extrêmes graves à double bobine 12 po (2Ω)+(2 Ω)

SWR-1042D

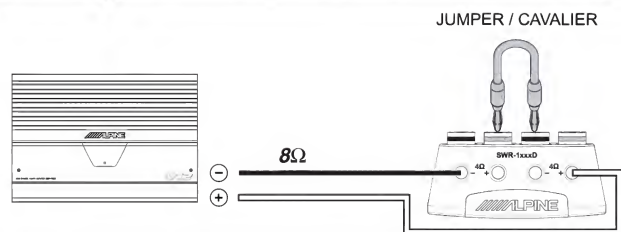
10 Inch Dual Voice Coil Subwoofer (4Ω)+(4 Ω)
Haut-parleur d'extrêmes graves à double bobine 10 po (4Ω)+(4 Ω)

SWR-1022D

10 Inch Dual Voice Coil Subwoofer (2Ω)+(2 Ω)
Haut-parleur d'extrêmes graves à double bobine 10 po (2Ω)+(2 Ω)

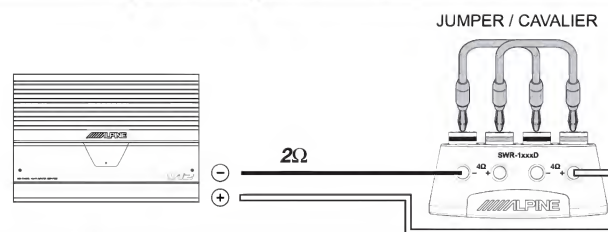
Example 1 One Amplifier and One Subwoofer

Exemple 1 1 amplificateur et 1 h.-p. d'extrêmes graves



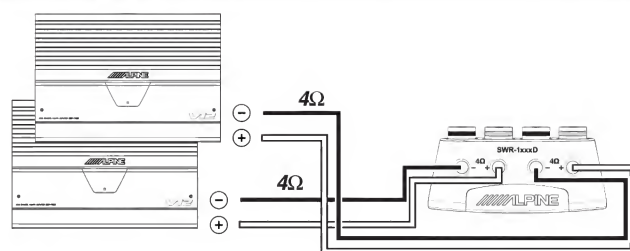
Example 2 One Amplifier and One Subwoofer

Exemple 2 1 amplificateur et 1 h.-p. d'extrêmes graves



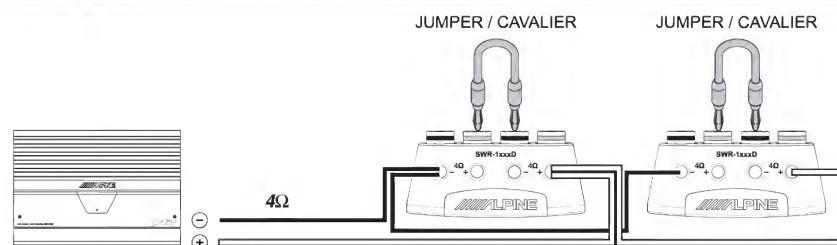
Example 3 Two Amplifiers and One Subwoofer

Exemple 3 2 amplificateurs et 1 h.-p. d'extrêmes graves



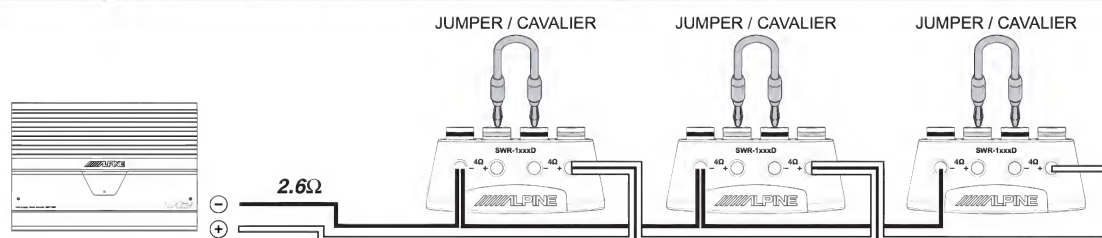
Example 4 One Amplifier and Two Subwoofers

Exemple 4 1 amplificateur et 2 h.-p. d'extrêmes graves



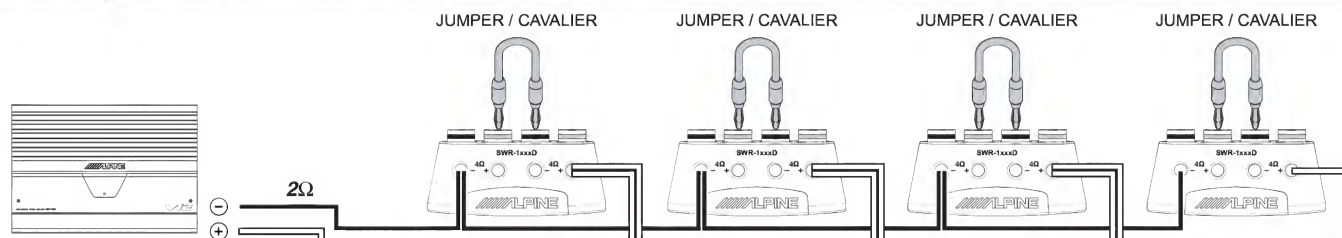
Example 5 One Amplifier and Three Subwoofers

Exemple 5 1 amplificateur et 3 h.-p. d'extrêmes graves



Example 6 One Amplifier and Four Subwoofers

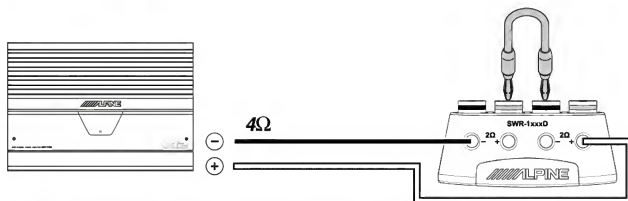
Exemple 6 amplificateur et 4 h.-p. d'extrêmes graves



Example 1 One Amplifier and One Subwoofer

Exemple 1 1 amplificateur et 1 h.-p. d'extrêmes graves

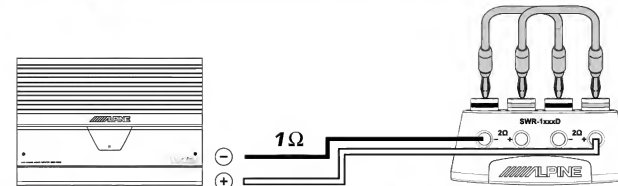
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Example 2 One Amplifier and One Subwoofer

Exemple 2 1 amplificateur et 1 h.-p. d'extrêmes graves

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Caution ! Consult amplifier owner's manual for 1Ω connection.

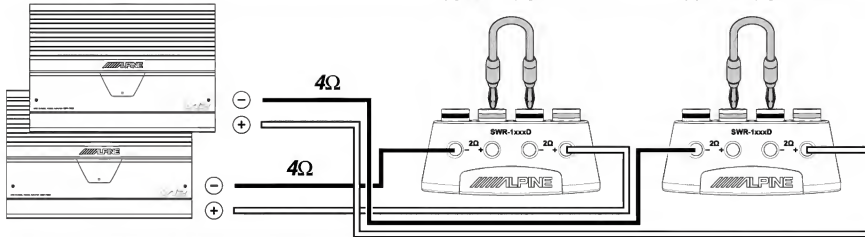
Attention : lire le manuel de l'amplificateur pour la connexion à 1Ω .

Example 3 Two Amplifiers and Two Subwoofers

Exemple 3 2 amplificateurs et 2 h.-p. d'extrêmes graves

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JUMPER / CAVALIER

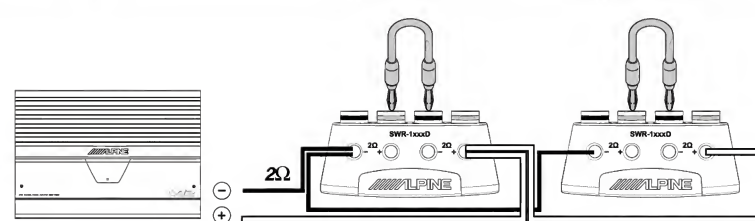


Example 4 One Amplifier and Two Subwoofers

Exemple 4 1 amplificateur et 2 h.-p. d'extrêmes graves

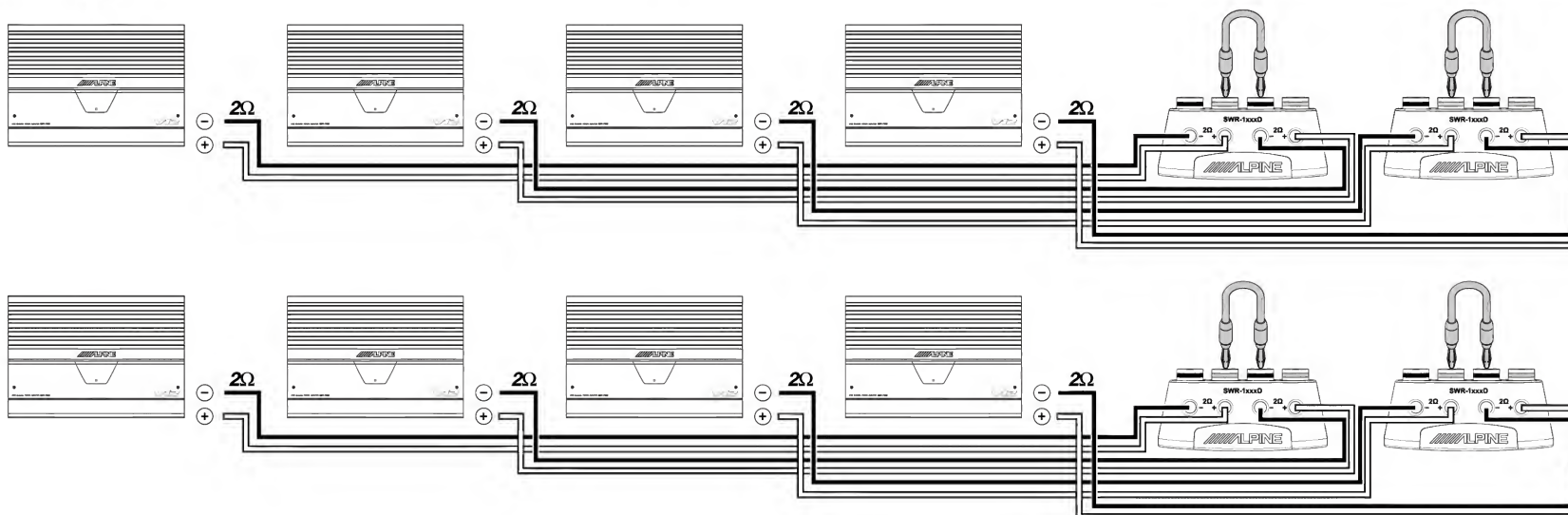
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Example 5 Eight Amplifiers and Four Subwoofers-Competition Diagram

Exemple 5 8 amplificateurs et 4 h.-p. d'extrêmes graves - schéma de compétition



Subwoofer Features and Specifications	
Features	
Size	
Power Handling (RMS/peak)	
Power Range (RMS)	
Frequency Response	
Diaphragm	Material
	Design
Surround	Material
	Design
Spider	Material
	Design
Voice Coil	Material
	Design
Motor Structure	Pole Geometry
	Configuration
Frame	Material
	Design
Terminals	Layout
	Design
Tinsel Leads	Design
Gasket	Design
Enclosure Information	
Mounting Depth	
Mounting Diameter - Front Mount	
Displacement - Front Mount**	
Added Volume - Reverse Mount (magnet out)**	
Recommended Enclosure Alignments	
Sealed Box Volume Range (Gross)	
Optimum Sealed Box	External Box Dimensions
	Gross Internal Volume
	Net Internal Volume**
	F _s , Q _s
Vented Box Volume Range (Gross)	
Optimum Vented Box	External Box Dimensions
	Gross Internal Volume
	Vent Area (dimensions)
	Vent Length
	Vent Displacement
	Net Internal Volume (V _b)**
	F _s , ripple, F _b
Electro-Mechanical Parameters [#]	
Nominal Impedance	
Frequency Response	
Sensitivity (SPL@1W/1m)*	
D.C Coil Resistance (Re)	
Inductance (Le) 1kHz/20kHz	
Free Air Resonance (Fs)	
Equivalent Stiffness (Vas)	
Mechanical Q (Qms)	
Electrical Q (Qes)	
Total Q (Qts)	
Linear Excursion [(Hvc-Hag)/2], One-Way (Xmax)	
Magnetic Linear Excursion, One-Way (Xmag)	
Mechanical Excursion, Peak-to-Peak	
Gap Height (Hag)	
Coil Height (Hvc)	
Cone Area (Sd)	
Voice Coil Diameter	
Magnet Weight	

Type-R					
SWR-1022D	SWR-1042D	SWR-1222D	SWR-1242D	SWR-1522D	SWR-1542D
10"	10"	12"	12"	15"	15"
500W/1500W	500W/1500W	500W/1500W	500W/1500W	750W/2000W	750W/2000W
200W-500W	200W-500W	200W-500W	200W-500W	400W-750W	400W-750W
24Hz-600kHz	26Hz-600Hz	23Hz-500Hz	25Hz-500Hz	18Hz-400Hz	20Hz-400Hz
Kevlar Reinforced Pulp Fiber					
2-piece Structural Parabolic					
Injection Molded Santoprene®					
High Amplitude Multi-Roll					
Nomex®					
Mirrored Progressive					
180°C High Temp Wire on Spiral Cut Aluminum Former					
4-Layer Dual Voice Coil					
Compound Radius Curve (Patent #6,639,993)					
Radial Vented VC Heat Sink and Airflow Management System (Pat. Pending)					
Cast Aluminum					
Perimeter Vented Heat Transfer (Pat. Pending)					
One Side					
Heavy Duty 8ga. Push with Housing, Banana Plug Jumper					
Reinforced Layer Spider Integration (Patent #6,810,988)					
Concealed Mount Gasket System					
172 mm (6.8")	172 mm (6.8")	195 mm (7.7")	195 mm (7.7")	234 mm (9.2")	234 mm (9.2")
231 mm (9.1")	231 mm (9.1")	275 mm (10.9")	275 mm (10.9")	349 mm (13.8")	349 mm (13.8")
0.050 ft ³	0.050 ft ³	0.071 ft ³	0.071 ft ³	0.123 ft ³	0.123 ft ³
0.055 ft ³	0.055 ft ³	0.085 ft ³	0.085 ft ³	0.160 ft ³	0.160 ft ³
Sealed, Vented, Bandpass					
0.5-0.8 ft ³	0.5-0.8 ft ³	0.7-1.0 ft ³	0.7-1.0 ft ³	1.3-2.5 ft ³	1.3-2.5 ft ³
11.5" x 11.5" x 12.75"	11.5" x 11.5" x 12.75"	13" x 13" x 12.5"	13" x 13" x 12.5"	16.5" x 16.5" x 15"	16.5" x 16.5" x 15"
0.65 ft ³	0.65 ft ³	0.85 ft ³	0.85 ft ³	1.75 ft ³	1.75 ft ³
0.6 ft ³	0.6 ft ³	0.78 ft ³	0.78 ft ³	1.625 ft ³	1.625 ft ³
49Hz, 0.65	48Hz, 0.69	51Hz, 0.67	49Hz, 0.7	43Hz, 0.64	44Hz, 0.65
0.6-1.25 ft ³	0.6-1.25 ft ³	0.75-1.75 ft ³	0.75-1.75 ft ³	1.5-3.0 ft ³	1.5-3.0 ft ³
12.5" x 14.5" x 17.25"	12.5" x 14.5" x 17.25"	18" x 13.5" x 16.5"	18" x 13.5" x 16.5"	19.5" x 16.5" x 20"	19.5" x 16.5" x 20"
1.3 ft ³	1.3 ft ³	1.7 ft ³	1.7 ft ³	2.9 ft ³	2.9 ft ³
11 in ² (11" x 1")	11 in ² (11" x 1")	15 in ² (12" x 1.25")	15 in ² (12" x 1.25")	22.5 in ² (15" x 1.5")	22.5 in ² (15" x 1.5")
22 in.	22 in.	22.75 in.	22.75 in.	27 in.	27 in.
0.237 ft ³	0.237 ft ³	0.305 ft ³	0.305 ft ³	0.51 ft ³	0.51 ft ³
1 ft ³	1 ft ³	1.3 ft ³	1.3 ft ³	2.25 ft ³	2.25 ft ³
30 Hz, 2.8 dB, 35 Hz	30 Hz, 3.5 dB, 36 Hz	33 Hz, 2 dB, 36 Hz	33 Hz, 2.5 dB, 36 Hz	27 Hz, 2.7 dB, 30 Hz	29 Hz, 2.4 dB, 30 Hz
2Ω+2Ω	4Ω+4Ω	2Ω+2Ω	4Ω+4Ω	2Ω+2Ω	4Ω+4Ω
24 - 600Hz	26 - 600Hz	23 - 500Hz	25 - 500Hz	18 - 400Hz	20 - 400Hz
83 dB	83 dB	85 dB	85 dB	87 dB	87 dB
1.85Ω+1.85Ω	3.7Ω+3.7Ω	1.85Ω+1.85Ω	3.7Ω+3.7Ω	1.6Ω+1.6Ω	3.45Ω+3.45Ω
2.48mH / 1.06mH	3.94mH / 1.63mH	2.35mH / 1.01mH	3.71mH / 1.67mH	2.53mH / 0.99mH	4.17mH / 1.64mH
31Hz	33Hz	28Hz	29Hz	22Hz	23Hz
20L (0.71 ft ³)	20L (0.71 ft ³)	45L (1.6 ft ³)	45L (1.6 ft ³)	100L (3.53 ft ³)	100L (3.53 ft ³)
8.67	7.92	8.25	7.89	8.57	7.71
0.53	0.57	0.44	0.50	0.43	0.48
0.50	0.53	0.42	0.47	0.41	0.45
18.1 mm	18.2 mm	18.1 mm	18.2 mm	20.7mm	20.5 mm
19.6 mm	19.6 mm	19.4 mm	19.4 mm	21.4 mm	21.5 mm
60 mm	60 mm	65 mm	65 mm	70 mm	70 mm
10 mm	10 mm	10 mm	10 mm	10 mm	10 mm
46.1 mm	46.4 mm	46.1 mm	46.4 mm	51.3 mm	51.0 mm
332 cm ²	332cm ²	480 cm ²	480 cm ²	775 cm ²	775 cm ²
50 mm (2")	50 mm (2")	50 mm (2")	50 mm (2")	65 mm (2.6")	65 mm (2.6")
85 oz	85 oz	109 oz	109 oz	155 oz	155 oz

Note: All specifications are subject to change without notice

[#] All T/S parameters measured/calculated with voice coils connected in series, after break-in.

* This commonly misunderstood specification should not be used as a reference for subwoofer output capability.

** Based upon 3/4" (19mm) baffle thickness, with opening cut approximately to gasket inner diameter

Caractéristiques et spécifications	
Features	
Taille	
Puissance admissible (efficace/de crête)	
Plage de puissance (efficace)	
Réponse en fréquence (Hz)	
Membrane	Matériau
	Conception
Suspension	Matériau
	Conception
Centreur	Matériau
	Conception
Bobine	Matériau
	Conception
Moteur	Géométrie de pièce polaire
	Configuration
Bâti	Matériau
	Conception
Bornes	Répartition
	Conception
Fils conducteurs	Conception
Joint d'étanchéité	Conception
Enceinte	
Profondeur de montage	
Diamètre de montage - montage avant	
Déplacement - montage avant**	
Volume ajouté - montage inversé**	
Types d'enceintes recommandés	
Volume d'enceinte close (brut)	
Enceinte close optimale	Dimensions extérieures
	Volume intérieur brut
	Volume intérieur net***
	F _s , Qtc
Volume d'enceinte à évent (brut)	
Enceinte à évent optimale	Dimensions extérieures
	Volume intérieur brut
	Aire de l'évent (dimensions)
	Longueur de l'évent
	Déplacement de l'évent
	Volume intérieur net (V _i)***
	F _s , crête, F _o
Paramètres électromécaniques [#]	
Impédance nominale	
Réponse en fréquence	
Sensibilité (NPA @ 1 W / 1 m)*	
Résistance CC de la bobine (Re)	
Inductance (Le) 1 kHz / 20 kHz	
Résonance à l'air libre (Fs)	
Raideur équivalente (Vas)	
Q mécanique (Qms)	
Q électrique (Qes)	
Q total (Qts)	
Déplacement linéaire [(Hvc-Hag/2)], un sens (Xmax)	
Déplacement linéaire magnétique, un sens (Xmag)	
Déplacement mécanique, crête à crête	
Hauteur de l'écartement (Hag)	
Hauteur de la bobine (Hvc)	
Surface du diaphragme (Sd)	
Diamètre de la bobine	
Poids de l'aimant	

Notes:

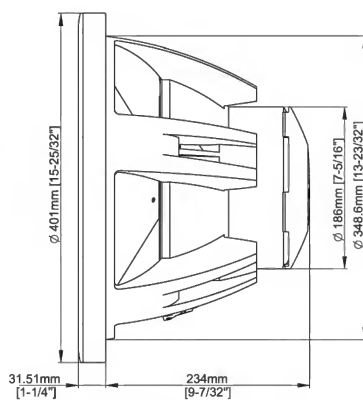
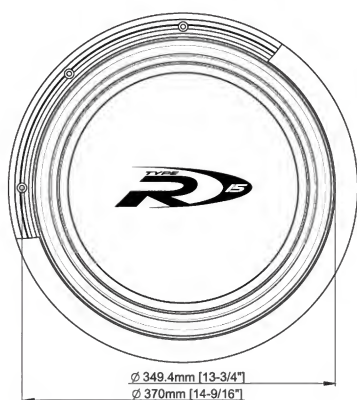
Remarque : Les spécifications peuvent changer sans préavis.

Paramètres T/S mesurés/calculés avec bobines reliées en série, après rodage.

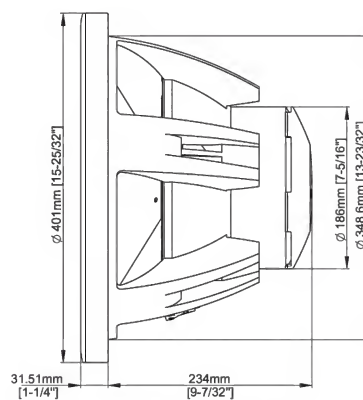
* Ne pas utiliser cette spécification souvent mal comprise comme référence pour la puissance du haut-parleur d'extrêmes graves.

** Panneau de 0,75 po (19 mm) d'épaisseur, ouverture correspondant environ au diamètre intérieur du joint d'étanchéité.

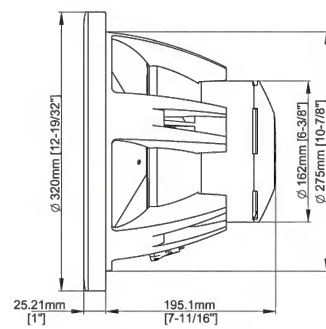
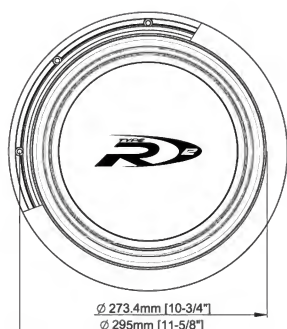
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SWR-1022D	SWR-1042D	SWR-1222D	SWR-1242D	SWR-1522D	SWR-1542D
10"	10"	12"	12"	15"	15"
500W/1500W	500W/1500W	500W/1500W	500W/1500W	750W/2000W	750W/2000W
200W-500W	200W-500W	200W-500W	200W-500W	400W-750W	400W-750W
24Hz-600Hz	26Hz-600Hz	23Hz-500Hz	25Hz-500Hz	18Hz-400Hz	20Hz-400Hz
Pâte renforcée de Kevlar					
2 pièces parabolique					
Santoprene ^{MD} injecté					
Multibourellets à amplitude élevée					
Nomex ^{MD}					
Centreur double progressif Nomex ^{MD}					
Fil résistant jusqu'à 180°C sur forme d'aluminium à sillon hélicoïdal					
4 couches, double bobine					
Courbe complexe (brevet n° 6,639,993)					
Bobine à dissipateur thermique à ventilation radiale et gestion du flux d'air (brevet en instance)					
Cast Aluminum					
Bâti à transfert thermique et ventilation périmétrique (brevet en instance)					
Un côté					
Solide, calibre 8, à pression avec boîtier, cavalier à fiche banane					
Intégrés au centreur, couche renforcée (brevet n° 6,810,988)					
Joint d'étanchéité couvre-vis					
172 mm (6.8 po)	172 mm (6.8 po)	195 mm (7.7 po)	195 mm (7.7 po)	234 mm (9.2 po)	234 mm (9.2 po)
231 mm (9.1 po)	231 mm (9.1 po)	275 mm (10.9 po)	275 mm (10.9 po)	349 mm (13.8 po)	349 mm (13.8 po)
0.050 pi ³	0.050 pi ³	0.071 pi ³	0.071 pi ³	0.123 pi ³	0.123 pi ³
0.055 pi ³	0.055 pi ³	0.085 pi ³	0.085 pi ³	0.160 pi ³	0.160 pi ³
close, évent, passe-bande					
0.5-0.8 pi ³	0.5-0.8 pi ³	0.7-1.0 pi ³	0.7-1.0 pi ³	1.3-2.5 pi ³	1.3-2.5 pi ³
11.5 po x 11.5 po x 12.75 po	11.5 po x 11.5 po x 12.75 po	13 po x 13 po x 12.5 po	13 po x 13 po x 12.5 po	16.5 po x 16.5 po x 15 po	16.5 po x 16.5 po x 15 po
0.65 pi ³	0.65 pi ³	0.85 pi ³	0.85 pi ³	1.75 pi ³	1.75 pi ³
0.6 pi ³	0.6 pi ³	0.78 pi ³	0.78 pi ³	1.625 pi ³	1.625 pi ³
49Hz, 0.65	48Hz, 0.69	51Hz, 0.67	49Hz, 0.7	43Hz, 0.64	44Hz, 0.65
0.6-1.25 pi ³	0.6-1.25 pi ³	0.75-1.75 pi ³	0.75-1.75 pi ³	1.5-3.0 pi ³	1.5-3.0 pi ³
12.5 po x 14.5 po x 17.25 po	12.5 po x 14.5 po x 17.25 po	18 po x 13.5 po x 16.5 po	18 po x 13.5 po x 16.5 po	19.5 po x 16.5 po x 20 po	19.5 po x 16.5 po x 20 po
1.3 pi ³	1.3 pi ³	1.7 pi ³	1.7 pi ³	2.9 pi ³	2.9 pi ³
11 in ² (11 po x 1 po)	11 in ² (11 po x 1 po)	15 in ² (12 po x 1.25 po)	15 in ² (12 po x 1.25 po)	22.5 in ² (15 po x 1.5 po)	22.5 in ² (15 po x 1.5 po)
22 in.	22 in.	22.75 in.	22.75 in.	27 in.	27 in.
0.237 pi ³	0.237 pi ³	0.305 pi ³	0.305 pi ³	0.51 pi ³	0.51 pi ³
1 pi ³	1 pi ³	1.3 pi ³	1.3 pi ³	2.25 pi ³	2.25 pi ³
30 Hz, 2.8 dB, 35 Hz	30 Hz, 3.5 dB, 36 Hz	33 Hz, 2.8 dB, 36 Hz	33 Hz, 2.5 dB, 36 Hz	27 Hz, 2.7 dB, 30 Hz	29 Hz, 2.4 dB, 30 Hz
2Ω+2Ω	4Ω+4Ω	2Ω+2Ω	4Ω+4Ω	2Ω+2Ω	4Ω+4Ω
24 - 600Hz	26 - 600Hz	23 - 500Hz	25 - 500Hz	18 - 400Hz	20 - 400Hz
83 dB	83 dB	85 dB	85 dB	87 dB	87 dB
1.85Ω+1.85Ω	3.7Ω+3.7Ω	1.85Ω+1.85Ω	3.7Ω+3.7Ω	1.6Ω+1.6Ω	3.45Ω+3.45Ω
2.48mH / 1.06mH	3.94mH / 1.63mH	2.35mH / 1.01mH	3.71mH / 1.67mH	2.53mH / 0.99mH	4.17mH / 1.64mH
31Hz	33Hz	28Hz	29Hz	22Hz	23Hz
20L (0.71 pi ³)	20L (0.71 pi ³)	45L (1.6 pi ³)	45L (1.6 pi ³)	100L (3.53 pi ³)	100L (3.53 pi ³)
8.67	7.92	8.25	7.89	8.57	7.71
0.53	0.57	0.44	0.50	0.43	0.48
0.50	0.53	0.42	0.47	0.41	0.45
18.1 mm	18.2 mm	18.1 mm	18.2 mm	20.7mm	20.5 mm
19.6 mm	19.6 mm	19.4 mm	19.4 mm	21.4 mm	21.5 mm
60 mm	60 mm	65 mm	65 mm	70 mm	70 mm
10 mm	10 mm	10 mm	10 mm	10 mm	10 mm
46.1 mm	46.4 mm	46.1 mm	46.4 mm	51.3 mm	51.0 mm
332 cm ²	332 cm ²	480 cm ²	480 cm ²	775 cm ²	775 cm ²
50 mm (2 po)	50 mm (2 po)	50 mm (2 po)	50 mm (2 po)	65 mm (2.6 po)	65 mm (2.6 po)
85 oz	85 oz	109 oz	109 oz	155 oz	155 oz



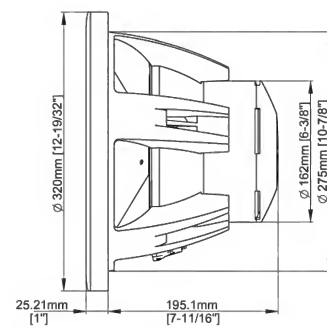
SWR-1542D



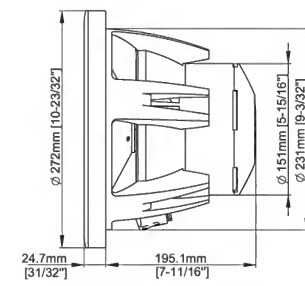
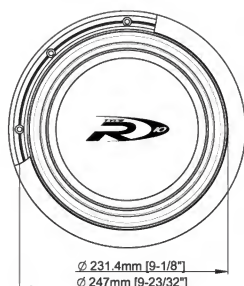
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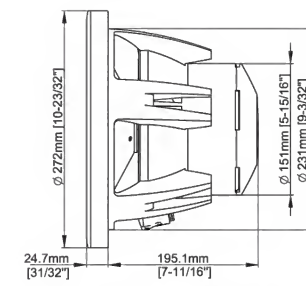
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SWR-1222D



SWR-1042D



SWR-1022D



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